Claims:

- Process for the hydrogenation of aliphaticsubstituted aromatic or heteroaromatic compounds having an asymmetrical C atom, characterised in that the hydrogenation is performed in the presence of a platinum-rhodium mixed catalyst.
- 2. Process for the hydrogenation of the aromatic nucleus of compounds having the general formula (I)

$$P^{1}$$
 R^{2}
 P^{2}
 R^{1}
 R^{3}
 R^{4}
(I)

10 wherein n can be 0,1,2 R^1 represents unsubstituted or substituted (C_6-C_{18}) aryl, (C_7-C_{19}) aralkyl, $((C_1-C_8)$ alkyl)₁₋₃ (C_6-C_{18}) aralkyl $((C_1-C_8) \text{ alkyl})_{1-3} (C_6-C_{18}) \text{ aryl}, (C_3-C_{18})$ heteroaryl, (C_4-C_{19}) heteroaralkyl, $((C_1-C_8)$ alkyl)₁₋₃ 15 (C_3-C_{18}) heteroaryl, R^2 denotes H, OH, (C_1-C_8) alkyl, (C_2-C_8) alkoxyalkyl, (C_6-C_{18}) aryl, (C_7-C_{19}) aralkyl, (C_3-C_{18}) heteroaryl, (C_4-C_{19}) heteroaralkyl, $((C_1-C_8)$ alkyl)₁₋₃ (C_6-C_{18}) aryl, 20 $((C_1-C_8) \text{ alkyl})_{1-3} (C_3-C_{18}) \text{ heteroaryl}, (C_3-C_8)$ cycloalkyl, $((C_1-C_8) \text{ alkyl})_{1-3}$ (C_3-C_8) cycloalkyl, (C_3-C_8) cycloalkyl (C_1-C_8) alkyl, ${\ensuremath{R}^3}$ and ${\ensuremath{R}^4}$ together denote an =0 function or H or (C_1-C_8) alkyl, (C_6-C_{18}) aryl, ${\ensuremath{P^1}}$ and ${\ensuremath{P^2}}$ mutually independently stand for hydrogen or 25 an amino protective group or together stand for a bifunctional amino protective group,

or carboxyl protective group and

P³ represents hydrogen or a hydroxyl protective group

the C atom marked with * is an asymmetrical C atom, characterised in that the hydrogenation is performed in the presence of a platinum-rhodium mixed catalyst.

- Process according to claim 1 and/or 2, characterised in that aromatic amino acids or aromatic-substituted amino alcohols are hydrogenated.
- 4. Process according to one or more of claims 1 to 3, characterised in that a ratio of platinum to rhodium of between 20:1 and 1:1 (w/w) is used in the catalyst.
- 5. Process according to one or more of claims 1 to 4, characterised in that

 the catalyst is used in a quantity of 0.1 to 20 wt.%, relative to the compound to be hydrogenated.
- Process according to one or more of the preceding claims,
 characterised in that
 the catalyst is adsorbed on a support.
- 7. Process according to one or more of the preceding claims,
 characterised in that
 the hydrogenation is performed in the presence of
 solvents selected from the group comprising water,
 alcohols, ethers or mixtures thereof.
- Process according to one or more of the preceding claims,
 characterised in that
 the hydrogenation is performed under hydrogen pressures of between 1 and 100 bar.

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9. Process according to one or more of the preceding claims, characterised in that the hydrogenation is performed at temperatures of 10°C to 150°C.